Can preconscious attention for itch stimuli be modified?

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON24574

Source
Nationaal Trial Register

Health condition

attention; attentional retraining; attention bias modification; itch; pruritus; healthy volunteers; aandacht; aandachtstraining; jeuk, gezonde vrijwilligers

Sponsors and support

Primary sponsor: Leiden University
Source(s) of monetary or material Support: Netherlands Organization for Scientific Research (NWO) and Leiden University Fund (Den Dulk-Moermans Fund)

Intervention

Outcome measures

Primary outcome

The difference between the average reaction time for incongruent trials (at the location of the neutral stimulus) and congruent trials (at the location of the itch stimulus) during the post-ABM training dot-probe task will be the primary outcome measure. This outcome measure will be compared across the three conditions, while taking into account the respective reaction times during the pre-ABM dot-probe task.

Secondary outcome

Secondarily, self-ratings of experienced itchiness of the cowhage stimulus on a visual analogue scale (VAS) will be compared post-training between the three conditions, while taking into account the VAS itch scores of the cowhage stimulus pre-training.

Thirdly, the reaction times for congruent and incongruent trials at baseline (pre-ABM training) will be compared within the entire group.

Eye-movements towards pictorial itch and neutral stimuli will be exploratively compared. The ABM training effect will be exploratively associated with individual characteristics.

Study description

Background summary

The notion that itch draws attention can be supported from its evolutionary role to protect our body from possible harm alike other threatening stimuli, e.g. pain. Earlier research has shown that healthy participants display an attentional bias towards pictorial itch stimuli, i.e. participants allocate their attention preferentially towards itch stimuli rather than to neutral stimuli (van Laarhoven et al., 2017). However, it is unknown so far if an attentional bias for itch already occurs and can be modified before conscious processing takes place. Therefore, the current study will investigate whether a preconscious attentional bias for itch stimuli exists and whether such a bias can be modified by attentional bias modification training towards or away from itch.
We use the dot-probe paradigm, which has frequently been applied in different research areas, including anxiety and pain. If preconscious attention for itch can be modified, a next step could be to investigate the potential ABM training potency in patients suffering from chronic itch.

Study objective

The primary hypothesis is that preconscious attention bias modification (ABM) training towards and away from pictorial itch stimuli results in altered preconscious attention for pictorial itch stimuli.

Secondarily, it will be explored whether preconscious ABM training using pictorial itch stimuli influences sensitivity to cowhage-induced itch.

Thirdly, it is hypothesized that healthy participants show a preconscious attentional bias at

baseline.

Additionally, eye movements towards pictorial itch stimuli as well as some individual characteristics will be explored.

Study design

This study comprises one experimental session.

Intervention

In line with previously applied attentional bias modification (ABM) trainings for pain using a modified dot-probe task (e.g., Dehghani et al., 2004; Haggman et al., 2010; Heathcote et al., 2018; McGowan et al., 2009; Sharpe et al., 2010, 2012, 2014; Van Ryckeghem et al., 2018), we developed an ABM training for itch using subliminal presentation of stimuli to investigate modification of preconscious processing.

For every trial in this task, first a fixation point is briefly shown in the middle of the screen, followed by subliminal presentation of a pair of itch-related and neutral pictures. One of these pictures is shown in the upper half of the screen and the other in the lower half of the screen. Right after this subliminal presentation, scrambled versions of the same pictures are shown at the same locations (masks). Subsequently, a target symbol is presented on the screen, either congruently (at the same location) or incongruently (at the opposite location) to the location of the subliminally shown itch picture. Participants respond to the type of target symbol as quickly and accurately as possible by pressing the corresponding response button. Participants will be randomly allocated to one of three ABM training conditions: In the “training away from itch” condition, the targets will be presented incongruently, while in the “training towards itch” condition, the targets will be presented congruently to the location of the itch stimulus. In the control condition, an equal proportion of targets will be presented on both locations.

Before and after the ABM training, comparable dot-probe tasks with pictures (different stimuli) will be administered as measure of attention allocation towards the itch pictures. In addition, to investigate the potential effect of ABM training on itch sensitivity, itch will be induced by cowhage.

Contacts

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Eligibility criteria

Inclusion criteria

Volunteers aged between 18 and 35 years with normal vision (wearing contact lenses is allowed)

Exclusion criteria

- A medical diagnosis, such as eczema eczema, rheumatoid arthritis or heart disease.

- a (history of) psychiatric diagnosis, such as major depression or AD(H)D.

- Colour blindness

- Dyslexia

- Reduced vision or dependence on glasses

- regular recreative drug use, e.g., cannabis, MDMA

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	16-10-2018
Enrollment:	164
Type:	Anticipated

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion

Date:	16-10-2018
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL7353
NTR-old	NTR7561
Other	Commissie Ethiek Psychologie, Leiden University : CEP18-0731_309

Study results

Summary results
not yet